

Periscope.

ANATOMY AND PHYSIOLOGY.

110. ON THE INNERVATION OF THE INTRACRANIAL VESSELS. A. Morrison (Edinburgh Med. Journal, 1898, IV, 5, p. 413).

Working upon the brain of the fetal cat, the author succeeded in demonstrating fine nerve fibers coursing with the vessels of the pia mater, twisting about them, and terminating upon them in plexiform manner.

In his paper he considers the subject under the following heads:

1. "The character of the structures from which the nerves in question rise."
2. "The size of the vessels in association with which the nerves have been found."
3. "The character of the nerve fibers."
4. "The mode of termination of the nerves in the vessels, and in the pia mater."
5. "The presence of ganglion cells in the stems of the innervating trunks, and the character of these cells."

Of the first, he has not been able to get a very good idea.

2. The size of the vessels in association with the nerves was from 10 to 20 micra. The nerves themselves bore direct relation to the size of the vessels, the larger being about 2 micra in diameter, the individual branches measuring about 0.5 micron.

3. The nerve fibers are interrupted at intervals by nuclear bodies. The nerves have sheaths showing connective tissue corpuscles in the larger branches, and hyaline in the smaller ones.

4. The nerves terminate, both in the pia mater, and on the vessels, in a plexus, whose ultimate ramifications end in points so fine that their exact nature cannot be made out.

5. The ganglion cells occurring on the nerve trunks are unipolar and from 1 to 2.5 micra in diameter. They have a well marked nucleus and nucleolus.

His specimens were prepared by Sihler's hematoxylin method. The article is illustrated. ALLEN.

111. WEITERER BEITRAG ZUM VERHALTEN DER REFLEXE BEI HOHEN QUERSCHNITTSMYELITIDEN (A Further Contribution to the Behavior of the Reflexes in High Transverse Myelitis). Joseph Fraenkel (Deutsche Zeitschrift für Nervenheilkunde, Vol. 13, Nos. 3 and 4, p. 274).

Fraenkel reports a case of psammoma of the spinal cord, extending from the tenth thoracic to the first lumbar segment. The tumor seemed to arise from the posterior part of the cord. The twelfth segment was entirely destroyed and the first lumbar was not intact. The patellar reflex could not be obtained, but a tap on the patellar tendon caused reflex movement of the adductors.

About one hundred cases of complete, and about ten of partial, supralumbar lesion of the spinal cord have been reported, in which flaccid paraplegia existed, although the pyramidal tracts were degenerated and the lumbar cord and peripheral motor nerves were not diseased. Fraenkel believes, therefore, that the patellar reflex is lost in every case of complete supralumbar lesion, but he does not believe that

flaccid paraplegia of spinal origin is a proof of complete transverse lesion. Ten cases of lost reflexes from a partial lesion of the cord have been observed. Fraenkel gives the various theories which are held relating to the flaccid paraplegia from complete supralumbar transverse lesion, and accepts the views of Bastian, with some slight modification. He makes the preservation of muscular tonus of great importance in the maintenance of the reflexes. SPILLER.

112. LA NON-EQUIVALENCE DES DEUX HEMISPHERES CEREBRAUX (The Non-equivalence of the Cerebral Hemispheres). Klippel (*Journal de Méd.*, March 6, 1898).

After examination of a large number of specimens, the author finds a distinct difference between the secondary degeneration following lesions of the right and of the left cerebral hemispheres.

He has found descending degeneration of the crossed pyramidal tract after cortical softening on the left side limited to the frontal lobe anterior to the ascending frontal convolution, and leaving this entirely intact. In lesions involving the Rolandic convolutions he finds degeneration of the pyramidal tract more marked when the lesion is on the left side. Involvement of the direct pyramidal tract is more frequent in left-sided lesions. Bilateral descending degeneration, that is, degeneration of the crossed pyramidal tract on both sides from a unilateral lesion, is seen almost exclusively in lesions of the left side. PATRICK.

113. AN EXPERIMENTAL STUDY OF VISIONS. Morton Prince (*Brain*, 21, 1898, p. 528).

This is an interesting paper on the genesis of visions with the related phenomena. The author has summed up the observations as follows:

- (1) Visions in sane persons may be revivals of past visual experiences, which originally may have been conscious or sub-conscious. The original sub-conscious experience may have occurred in a moment of absentmindedness, or may not have been sufficiently intense to have entered consciousness, or (rarely), may have occurred in somnambulism.
- (2) The vision, instead of being a revival, may be a newly created pictorial representation of past experience other than visual. That is to say, past impressions of one or more senses (touch, hearing) and actions may translate themselves into a representation by another sense as a vision.
- (3) It is probable, though not proved, that a vision may not reproduce or represent any past experience, visual or other, but may be newly created out of something the subject has read, heard or thought. The inference from, and passing thoughts about, known facts, may weave themselves into visions. This was probably the origin of the visions of Joan of Arc, and religious enthusiasts.
- (4) Visions may partake more or less of the characteristics of these classes, being partly revivals, partly representations of actual non-visual experiences, and also of the subject's knowledge, inferences and thoughts.
- (5) Generalizing, it is possible that hallucinations of the other senses, especially of hearing, and as exhibited by trance mediums, may have a similar origin and composition.
- (6) Analogous phenomena may be observed in the attacks of hysterics where the passing thoughts in the normal state may appear as insistent ideas in the attack.
- (7) It is probable that thoughts which have strongly absorbed